DOCUMENT RESUME

ED 269 227 SE 046 541

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TITLE The High School Science Competition Sponsored by Itawamba Junior College.
INSTITUTION Itawamba Junior Coll., Tupelo, MS. Natural Science Div.
PUB DATE Oct 85
NOTE 6p.
PUB TYPE Reports - Descriptive (141) -- Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Biology; Chemistry; *Competition; High Schools; Physics; Science Education; *Science Instruction; *Secondary School Science

ABSTRACT

Following discussions between Itawamba Junior College (Fulton, Mississippi) and local high school science teachers, a periodic science competition was established for students in high schools located in the college's five-county area. The first competition was held in 1983 during which students took written tests in biology, chemistry, and physics. In addition, a team competition was held between four member teams from each participating school. The purpose of the competition was to provide information to teachers on the performance of their students and also to provide a means for teachers to come together to discuss problems confronting them in teaching their science courses. General comments about the competition and an outline of the 1985 high school competition are presented. The outline includes information about the general and team competitions, instructions, and time schedule. (JN)

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ED269227

October, 1985

THE HIGH SCHOOL SCIENCE COMPETITION - SPONSORED BY ITAWAMBA JUNIOR COLLEGE

BY

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THE HIGH SCHOOL SCIENCE COMPETITION

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ITAWAMBA JUNIOR COLLEGE

In discussion with some of the area high school science teachers it was determined that there was a need for them to come together periodically to discuss problems that they were encountering in teaching high school science courses. Subsequently night meetings were held in 1981 and 1982.

Many of the schools in the College's five county area only have one science teacher. One of the major concerns of these teachers was how their students were performing as compared to other students from other schools within the district. Another concern was what material should be covered or stressed in their particular discipline.

It was decided in 1982 that a science competition for the students would be beneficial for the teachers to learn how their students compared with other area students from high schools in the district. The first competition was held in the spring of 1983. Written tests were given in Biology, Chemistry and Physics and a team competition was held between four member teams from each school. While the students were taking the written tests the teachers met together to discuss problems confronting them in teaching the science courses.

After the competition is over each year, the high school teachers are sent a computer printout on their students performance only, indicating the number of correct questions answered, their rank on the test(s) and their percentile score(s).

The science competition is covered by the local newspaper, radio and television media. Individual winners received IJC scholarships as follows:

> 1st place - $500.00; 2nd place - $300.00; 3rd, 4th and 5th place - $100.00. Each team member receives a $250.00 scholarship.

Participation was very good the first year with 17 out of 22 schools participating. In 1985, 20 out of 22 schools participated.

As an added benefit the area high school science teachers are working together to write a district wide course syllabus for each course taught in biology, chemistry and physics. The questions asked at future science competitions will reflect the areas covered by the syllabi.

HIGH SCHOOL SCIENCE COMPETITION 1985

1. There will be two areas of competition:

   A. General Competition

   B. Team Competition

2. General Competition

   A. A maximun of 10 students may compete in each of the three areas to the general competition. The three areas are:

      (1) Biology

      (2) Chemistry

      (3) Physics

   B. The competition will consist of a multiple choice exam with questions provided by the science faculty of Itawamba Junior College, Fulton, Ms. A time limit of 45 minutes will govern each test. Students at registration must declare in which area of the competition they wish to participate. No student can participate in more than one area of the general competition.

   C. The students should provide their own pencils to take the exam. Those taking the physics test may use calculators. Those taking the other tests may not use calculators, notes, paper, etc.

   D. Students should not expect to be able to answer all the questions correctly. There will be questions of varying degrees of difficulty to provide a challenge.

   E. Students will not be allowed to copy down questions or take copies of the exams with them. The questions will be re-worded and re-used each year. Data will be compiled to weed out poor questions from year to year.

F. Percentile scores will be provided upon request to teachers as soon after the competition as possible.

G. Students that have won scholarships on a test in an area may not take that test again.

3. Team Competition

A. Each school will be allowed to field a team of 4 students. These 4 must be selected by the school from those that are allowed to participate in the general competition.

B. Three subject areas; chemistry, biology, and physics, will constitute the disciplines from which questions will be selected. Since several schools do not have physics classes every year, the questions will be weighed toward biology and chemistry.

C. The Competition

(1) Each team will receive a single identical question at the same time. The question will be on a folded sheet of paper. At a given signal, the paper may be opened. The team may then read and discuss the question for a given time interval. The captain of the team will then put the team's answer on the same paper and present it to a monitor. The answer will then be taken to a tabulation station. The time alloted for each question will depend upon the difficulty of the question.

(2) If a particular question has a value of 100 points and 5 teams answer the question correctly, then each of those teams receive 20 points. If a question has a value of 100 points and 10 teams answer it correctly, then those teams will receive 10 points each. The points are thus awarded on the basis of the point value of the question divided by the

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number of teams that answer correctly.

(3) After each question a short period of time will be provided so that each team can see how they compare with the other teams.

(4) In case of a tie, supplimentary questions will be asked to break the tie.

(5) Only pencils are allowed. No calculators, paper, or notes are allowed.

(6) The questions will be primarily multiple choice. If short answers are used, they will be designed to eliminate any ambiguity.

(7) No answers will be accepted after the designated time period has elapsed.

D. It is suggested that at least one student of the team be versed in one of each of the disciplines.

E. A team winner will be declared at the end of the competition and a plaque will be awarded to the first place team and certificates will be awarded for second through fifth place.

4. After the team competition the winners of the general competition will be announced.

5. The contest will be Tuesday March 5, 1985.

6. Time Schedule of Activities:

A. 8:30 - 10:00 am REGISTRATION

B. 10:00 am GENERAL COMPETITION

C. 11:00 am TEAM COMPETITION

D. 11:50 am ANNOUNCEMENT OF WINNERS

E. 12:00 noon LUNCH

7. Those not participating in the team competition will be allowed to observe the team competition in the auditorium.

8. Anyone classified as a high school student within the Itawamba Junior College area is eligible for participation.